



Health Consultation

MIDWEST BODY CORPORATION

PARIS, EDGAR COUNTY, ILLINOIS

CERCLIS NO. IL0002325330

APRIL 6, 1999

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service

Agency for Toxic Substances and Disease Registry

Division of Health Assessment and Consultation

Atlanta, Georgia 30333

Health Consultation: A Note of Explanation

An ATSDR health consultation is a verbal or written response from ATSDR to a specific request for information about health risks related to a specific site, a chemical release, or the presence of hazardous material. In order to prevent or mitigate exposures, a consultation may lead to specific actions, such as restricting use of or replacing water supplies; intensifying environmental sampling; restricting site access; or removing the contaminated material.

In addition, consultations may recommend additional public health actions, such as conducting health surveillance activities to evaluate exposure or trends in adverse health outcomes; conducting biological indicators of exposure studies to assess exposure; and providing health education for health care providers and community members. This concludes the health consultation process for this site, unless additional information is obtained by ATSDR which, in the Agency's opinion, indicates a need to revise or append the conclusions previously issued.

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HEALTH CONSULTATION

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Prepared by:

**Illinois Department of Public Health
Under Cooperative Agreement with the
Agency for Toxic Substances and Disease Registry**

BACKGROUND AND STATEMENT OF ISSUES

The Illinois Department of Public Health (IDPH) received a copy of a U.S. Environmental Protection Agency (USEPA) Action Memorandum in August 1998 concerning a request for a removal action at the Midwest Body Corporation (MBC) property near Paris, Illinois. IDPH reviewed the historical and environmental data available to determine if a public health threat exists. Hazardous chemicals have been identified in soil, sediment, and groundwater. Physical hazards were also identified at the site. MBC is on the Comprehensive Environmental Response, Compensation, and Liability Act Information System List (CERCLIS) and is considered a "brownfield" property since the city of Paris desires to redevelop the site. Concerns about contamination, human health, environmental conditions, and liability issues have hampered industrial redevelopment efforts. The focus of this health consultation is to evaluate environmental data for any public health implications.

MBC is at 2109 South Central Avenue, adjacent to the southern city limit of Paris in Edgar County, Illinois (Figure 1). The site occupies approximately 23 acres in a light industrial and residential area. Farmland borders the site on the southwest. Cadillac Products, Incorporated, is adjacent to MBC to the southeast. Central Avenue and the office of Robert Morgan, Incorporated, are east of MBC, and an alley and homes are north of the property. Foley Lumber is west of MBC. The site once had a 274,000 square foot (approximately 6.3 acres) factory building, two small pump houses, several above-ground storage tanks, a water tower, and about five acres of parking lots [1]. The property and surrounding area are serviced by the city of Paris for water and sewers. Natural gas comes from Ameren Central Illinois Public Service Company. Two active railroad spurs enter the property and service other neighboring businesses.

In July 1907, McGuire-Cummings Manufacturing Company bought the site from T.A. Foley, whose lumber company continues to operate on the property west of MBC. McGuire-Cummings constructed buildings in 1908 and began to manufacture street sweepers and street cars. In 1925, the company reorganized and changed its name to the Cummings Car and Coach Co. During World War II, the U.S. Navy contracted with the company to manufacture small bomb carriages. From 1945 to 1993, through a series of owners and leases, flatbed and utility truck bodies were fabricated at the facility. The last company, MBC, was formally dissolved in 1994 [1].

After the plant closed, several former employees made depositions to the Illinois State Police. They alleged that on more than one occasion from 1977 to 1980, drums containing waste lead paint, paint thinner waste, paint sludge, and paint filters were buried in an area west of the loading dock doors on the western part of the property. A Resource Conservation and Recovery Act (RCRA) Compliance Evaluation Inspection (CEI) was conducted in January 1994 by the Illinois Environmental Protection Agency (Illinois EPA). At that time, 70 to 80 drums of waste were on the site but were subsequently removed. According to the CEI, the specific operations formerly performed at the plant were:

- ▶ parts stamping and cutting;
- ▶ welding;
- ▶ parts washing;

- ▶ wood treatment;
- ▶ painting; and
- ▶ equipment repair and maintenance.

These operations generated the following wastes:

- ▶ hazardous paint waste (enamel paint residues mixed with xylenes);
- ▶ used paint booth air filters;
- ▶ water-soluble parts washer rinse waters;
- ▶ welding cooling water; and
- ▶ waste oil (from equipment maintenance) [1].

No records are available concerning disposal practices for these wastes before 1992. No evidence was found to suggest that contaminants were disposed improperly after the hazardous waste regulations were promulgated.

In April 1995, the city of Paris served notice of a "complaint of nuisance" against the property [2]. Subsequently, Illinois EPA notified MBC of their intent to access the site to conduct an environmental Remedial Investigation (RI). This RI was conducted by an Illinois EPA contractor from July through October 1996. The RI consisted of:

- ▶ removing and burning overgrown trees and brush from the east and west yards;
- ▶ conducting a geophysical survey of the subsurfaces to determine possible locations of buried tanks, drums, and utility lines;
- ▶ installing and sampling on-site monitoring wells to monitor groundwater and to identify groundwater flow direction; and
- ▶ collecting various soil samples and digging 135 test pits on the site to look for drums, paint waste, or other evidence of contamination [3].

The RI revealed on-site paint waste and drums or containers in seven separate areas at depths up to 8 feet below the ground surface (bgs). The two areas of buried drums and containers had the same paint waste as found in bulk in the test pits. These deteriorated drums or containers were leaking their contents to the surrounding soil and water. This paint waste contained elevated levels of lead, barium, cadmium, chromium, toluene, ethyl benzene, and xylene [1].

During an October 1997 USEPA site tour, the on-scene coordinator observed paint waste on the ground surface at the site which could come in direct contact with trespassers. The concern is that varying seasonal temperatures, rain, and snowmelt could result in further deterioration of the drums or containers allowing continued release of hazardous wastes to the surrounding soil and groundwater. In addition to environmental contamination concerns, physical hazards, such as broken glass, nuisance animals, open trenches, and any remaining asbestos-containing materials, are associated with the abandoned building [2].

IDPH staff walked around the perimeter of the site on August 5, 1998. The access gates at Hayes and Cleveland Streets were open but could be locked if necessary. Robert Morgan, Incorporated, has purchased the east side of the property, which included the 274,000 square foot

factory building (Figure 2). They have redeveloped part of this area by using the east parking lot for tractor trailers and employees' vehicles. A portion of the factory was rebuilt and is now used for Morgan's Fat Division. This active facility is between the Hayes Street gate entrance and the alley. Employees were observed leaving the facility at lunch break. One employee was observed operating a fork lift west of the facility at the remaining portion of the Midwest Body & Manufacturing Division. About one-third of the building has been razed and Morgan is using the remaining portion for a warehouse. An idle crane with metal building materials stacked around it was observed on the site. Additional razing and salvaging of building materials may be ongoing. An accessible opening for persons on foot is between an old guard station and a locked gate along the south railroad spur.

The site is generally flat. Surface water drainage is controlled by ditches, municipal sewers, streets, and railroad tracks. Most of the surface water is controlled by ditches in the west yard that empty to the south. There is no groundwater aquifer underlying the site that is capable of supporting a public water supply. The Paris municipal water is supplied from Twin Lakes, which is north of the city and about four miles from the site. Water well records from the Illinois State Water Survey show several rural wells are within one mile of the site. These wells are completed at depths of approximately 30 to 150 feet bgs. Illinois EPA's contractor believes that these wells are no longer used and have been abandoned [1].

DISCUSSION

The maximum concentration of each contaminant was compared with appropriate screening comparison values, when available, to select contaminants for further evaluation for both carcinogenic and non-carcinogenic health endpoints. Chemicals that exceeded comparison values and those for which no comparison value exists were selected for further evaluation (Tables 1 and 2). A detailed discussion of each of the comparison values reviewed is found in Attachment 1. Exceeding a comparison value does not mean adverse health effects will occur upon exposure. The amount of the contaminant, as well as the duration and route of exposure, the health status, and the receptivity of exposed individuals are important factors in determining the potential for adverse health effects.

Analytical results of samples collected during the RI showed the presence of soil, sediment, and groundwater contaminants. Volatile organic compounds (VOCs) and metals were detected in the soil samples. Test pits in areas B, C, and E contained varying amounts of buried paint waste (Figure 3). All the paint was described as a similar, mixed red and blue-gray paint. Paint waste was observed extending from the surface to 8 feet bgs.

During the RI, three sediment samples were collected at one foot bgs from the north, west, and central portions of the drainage ditch in the west yard (Figure 4). Polycyclic aromatic hydrocarbons (PAHs) and metals were detected in these samples. Since the drainage ditches were dry in the late summer, no grab surface water samples were collected. The source of the PAHs may be the result of precipitation coming in contact with tar or petroleum-based roofing materials and draining into the ditches from building roof drains.

Ten monitoring wells were installed on the site. Four were single, shallow table wells, and three were well nests (one deep and one shallow well) (Figure 4). No VOCs or semi-volatile organic chemicals were detected at levels greater than comparison values; however, some elevated levels of metals were found.

The sampling results available and the areas of visible paint waste, including the presence of drums and containers, indicate that site surface and subsurface soils are contaminated as a result of poor waste disposal.

Beryllium and arsenic were detected at levels greater than comparison values in the soil and sediment. The PAH benzo(a)pyrene was detected at levels greater than comparison values in sediment from a west drainage ditch. Metals, including thallium, manganese, and lead, were detected at levels greater than comparison values in on-site groundwater monitoring wells (Tables 1 and 2).

Adverse health effects can occur when a contaminant reaches a receptor population through an exposure pathway. A completed exposure pathway consists of a source of contamination, environmental media and transport mechanisms, a point of exposure, and a receptor population. Exposure to a contaminant may have occurred in the past, may be occurring now, or may occur in the future. When all these elements that link the contaminant source to an exposed population are known, a completed exposure pathway exists. When one of these elements is missing, only a potential exposure pathway exists. Completed exposure pathways are presented in Table 3.

As a worse-case scenario, IDPH assumed that a child would frequently trespass onto the property and have skin contact with soil, inhale contaminated dusts, inhale vapors from soil volatilization, and incidentally ingest dust through hand to mouth activities. IDPH does not know of anyone trespassing onto the site in this manner, and site security should limit trespassing. Employees at the facility may have been exposed to contaminants by the same exposure pathways.

Based on these exposure scenarios, benzo(a)pyrene and beryllium pose no apparent increased risk of getting cancer. Exposure to on-site arsenic concentrations in sediment through ingestion may present a low increased risk of cancer. This level of exposure is unlikely. None of these contaminants are easily, if at all, absorbed through the skin. Exposure to the low concentrations of these contaminants at the site is unlikely to cause non-carcinogenic adverse health effects.

At this time, groundwater sampling has not been conducted off the site to learn if contamination has migrated from MBC. Thallium, lead, and manganese are the primary contaminants of interest that were detected in the on-site groundwater monitoring wells at levels above comparison values. If ingested daily in drinking water, these contaminants could cause adverse health effects. However, no known drinking water wells are within a 1-mile radius of the site. Drinking water in the area is provided by the Paris municipal water system, which uses a surface source about four miles north of the site.

USEPA's Removal Action Plan proposes to characterize, remove, and properly dispose of hazardous substances and wastes (uncontainerized waste, buried drums, and small containers) and to remove about 2,000 cubic yards of contaminated soil. Subsequent to removal of contaminants, the excavated areas will be backfilled with clean material, top soil added, and vegetation planted to prevent soil erosion. Lastly, an extent-of-contamination study will be conducted to determine the full impact of hazardous contamination on environmental media at and around the site. Implementation of the proposed action should reduce the risk of any future exposures.

CHILD HEALTH INITIATIVE

IDPH recognizes that children are especially sensitive to some contaminants. For that reason, IDPH includes children when evaluating exposures to contaminants. Children trespassing onto the site are the most sensitive population considered in this health assessment.

CONCLUSIONS

IDPH concludes the site currently poses no apparent health hazard. Future exposure can be avoided if the following recommendations are implemented.

RECOMMENDATIONS

IDPH recommends that:

- ▶ USEPA or Illinois EPA restrict access to the site. Fences around the site should be maintained until remediation is complete and the physical hazards of abandoned buildings are eliminated.
- ▶ USEPA or Illinois EPA limit the future use of the property to industrial or commercial purposes. No residential redevelopment should occur without extensive remediation.
- ▶ USEPA or Illinois EPA install off-site groundwater monitoring wells to characterize any contaminants migrating from the site.
- ▶ USEPA or Illinois EPA provide hydrogeological data that defines the direction of groundwater flow at the site.
- ▶ Local authorities restrict, through property deed restrictions, the development of potable groundwater wells on the site.

PREPARER OF REPORT

Cary Ware
Environmental Toxicologist
Illinois Department of Public Health

REFERENCES

1. Midwest Body Corporation Remedial Investigation Report. Graef, Anhalt, Schloemer and Associates, Inc. Chicago, Illinois, May 1997.
2. Memorandum: Request for a Time-Critical Removal at the Midwest Body Corporation Site, Edgar County, Paris, Illinois. From Kevin R. Turner, On-Scene Coordinator, USEPA to William E. Muno, Director of Superfund Division, USEPA.
3. Results of the Environmental Investigation at Midwest Body Corporation, Inc. (Fact Sheet #2), IEPA, Springfield, Illinois, July 1997.
4. Paul Ruff, August 1998. Personal Communication with Paul Ruff, City of Paris City Manager, Paris, Illinois, regarding status of the former Midwest Body Corporation site.

TABLE 1. On-site Sediment and Soil Contaminants Exceeding Comparison Values
(August 1996)

Contaminant	Sediment Max. Conc. (ppm)	Soil Maximum Conc. (ppm)	Sediment Location	Soil Location	Comparison Value (ppm)
Benzo(a)pyrene	0.7	ND	SD-003	—	0.1 CREG
Beryllium	1.2	0.8	SD-003	SB-6	0.2 CREG
Arsenic	58.0	5.2	SD-001	SB-6	0.5 CREG

ppm - parts per million

CREG - Cancer Risk Evaluation Guide

Reference - 1

TABLE 2. On-site Groundwater Contaminants Exceeding Comparison Values
(September 1996)

Contaminant	Maximum Concentration (ppm)	Location	Comparison Value (ppm)
Thallium	0.5	MW-7B	0.004 LTHA
Manganese	41.0	MW-4	0.02 RMEG
Lead	0.19	MW-2	0.15A MCL

ppm - parts per million

LTHA - Lifetime Health Advisory for drinking water

RMEG - Reference Dose Media Evaluation Guide

MCL - Maximum Contaminant Level for drinking water (USEPA)

Reference - 1

TABLE 3. Completed Exposure Pathways

Pathway Name:	Source	Medium	Exposure Point	Exposure Route	Receptor Population	Time of Exposure	Exposure Activities	Estimated Number Exposed	Chemicals (identified by name or reference to table in document)
Sediments	MBC	Sediment	contacting on-site sediments	Dermal Ingestion Inhalation	On-site Workers Trespassers	Past Present Future	contacting on-site sediments	60	Table 1
On-site Surface Soil	MBC	Surface Soil	contacting on-site soil	Dermal Ingestion Inhalation	On-site Workers Trespassers	Past Present Future	contacting on-site soil	60	Table 1

Comparison Values Used In Screening Contaminants For Further Evaluation

Environmental Media Evaluation Guides (EMEGs) are developed for chemicals based on their toxicity, frequency of occurrence at National Priority List (NPL) sites, and potential for human exposure. They are derived to protect the most sensitive populations and are not action levels, but rather comparison values. They do not consider carcinogenic effects, chemical interactions, multiple route exposure, or other media-specific routes of exposure, and are very conservative concentration values designed to protect sensitive members of the population.

Reference Dose Media Evaluation Guides (RMEGs) are another type of comparison value derived to protect the most sensitive populations. They do not consider carcinogenic effects, chemical interactions, multiple route exposure, or other media-specific routes of exposure, and are very conservative concentration values designed to protect sensitive members of the population.

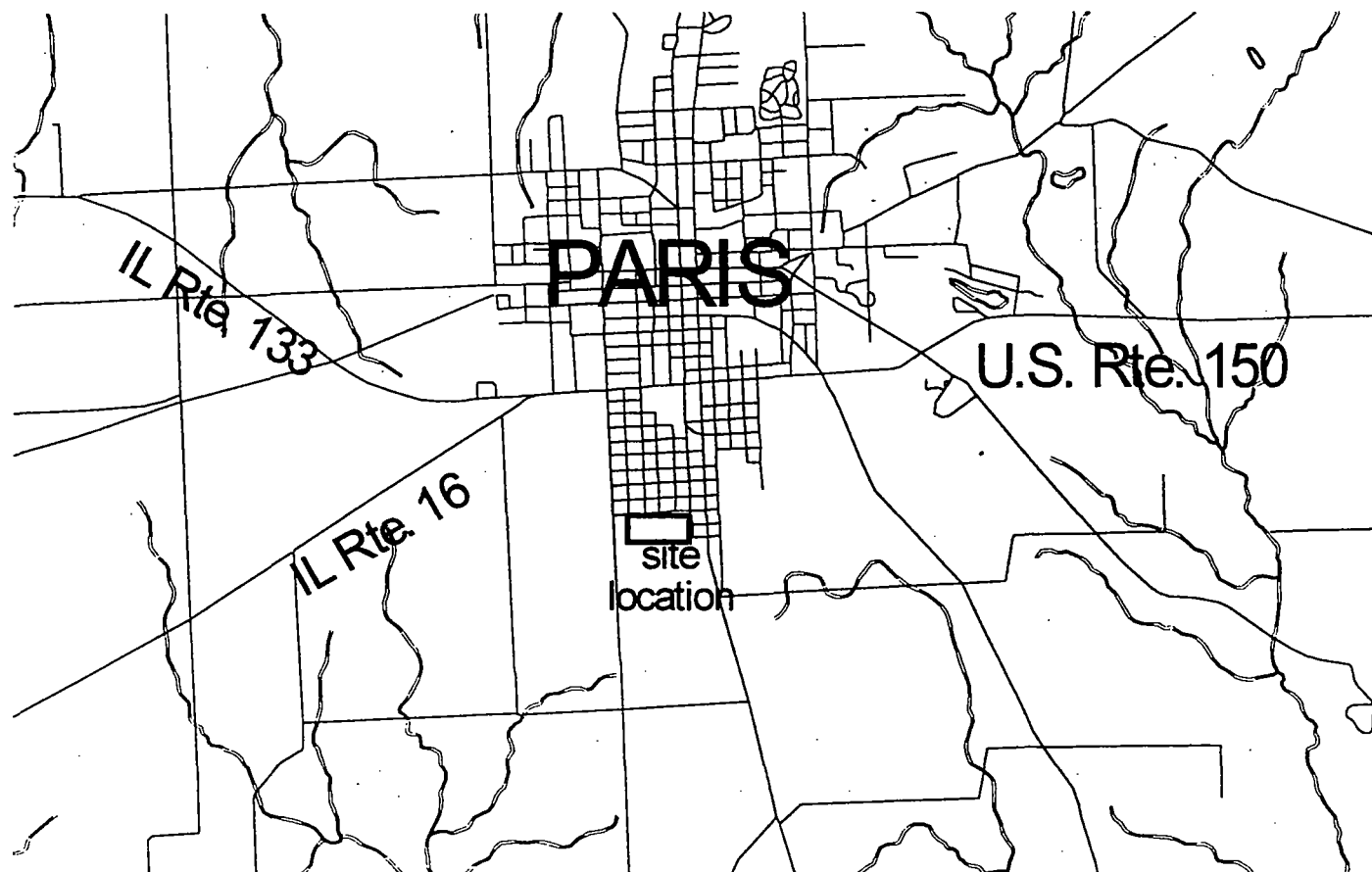
Cancer Risk Evaluation Guides (CREGs) are estimated contaminant concentrations based on a probability of one excess cancer in a million persons exposed to a chemical over a lifetime. These are also very conservative values designed to protect sensitive members of the population.

Maximum Contaminant Levels (MCLs) have been established by USEPA for public water supplies to reduce the chances of adverse health effects from contaminated drinking water. These standards are well below levels for which health effects have been observed and take into account the financial feasibility of achieving specific contaminant levels. These are enforceable limits that public water supplies must meet.

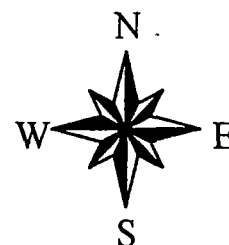
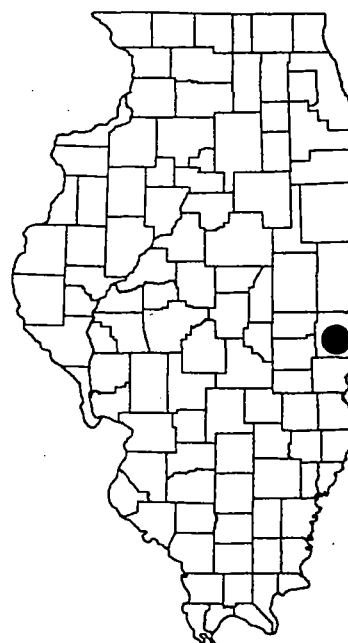
Lifetime Health Advisories for drinking water (LTHAs) have been established by USEPA for drinking water and are the concentration of a chemical in drinking water that is not expected to cause any adverse non-carcinogenic effects over a lifetime of exposure. These are conservative values that incorporate a margin of safety.

Figure 1

Location of Midwest Body Corporation Site



 Streams
Roads



Source: IDPH GIS

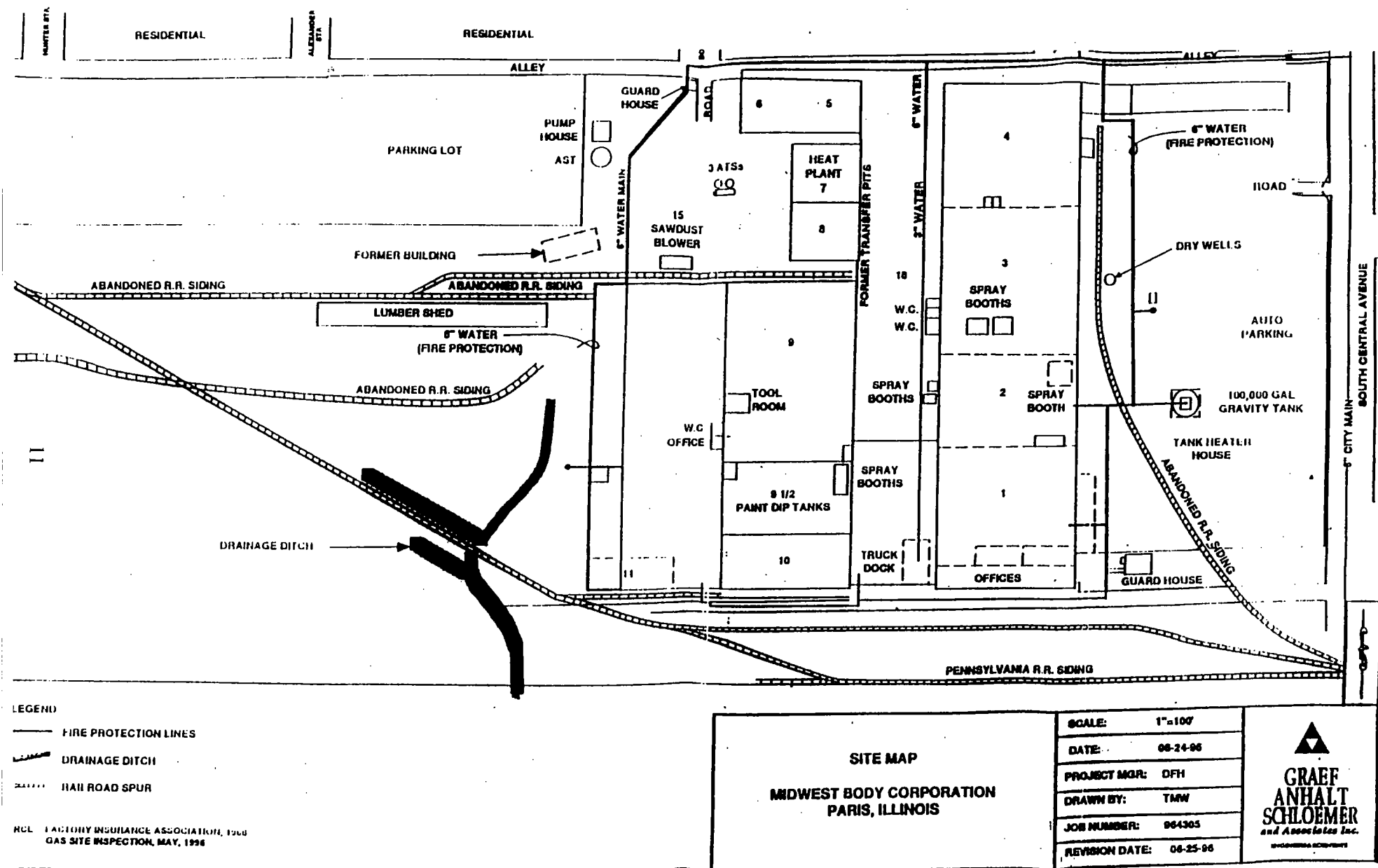


Figure 2

OTHER OFFICES LOCATED AT:
 GREEN BAY, WISCONSIN
 MADISON, WISCONSIN
 CHICAGO, ILLINOIS

PROJECT NAME:
 MIDWEST BODY CORPORATION
 PARS, ILLINOIS

SHEET TITLE:
 TABLE B
 SOIL CLEANUP OBJECTIVES
 FOR INDUSTRIAL/
 COMMERCIAL PROPERTIES
 EXCEEDANCES



PROJECT NUMBER: 984308
 DATE: 02-10-97
 PROJECT MGR: DFH
 DRAWN BY: TMW/JR
 FILE NAME: TABLE-B.DGN
 SCALE: 1" = 110'
 REVISED: 03-30-97
 FIGURE 3.2-8

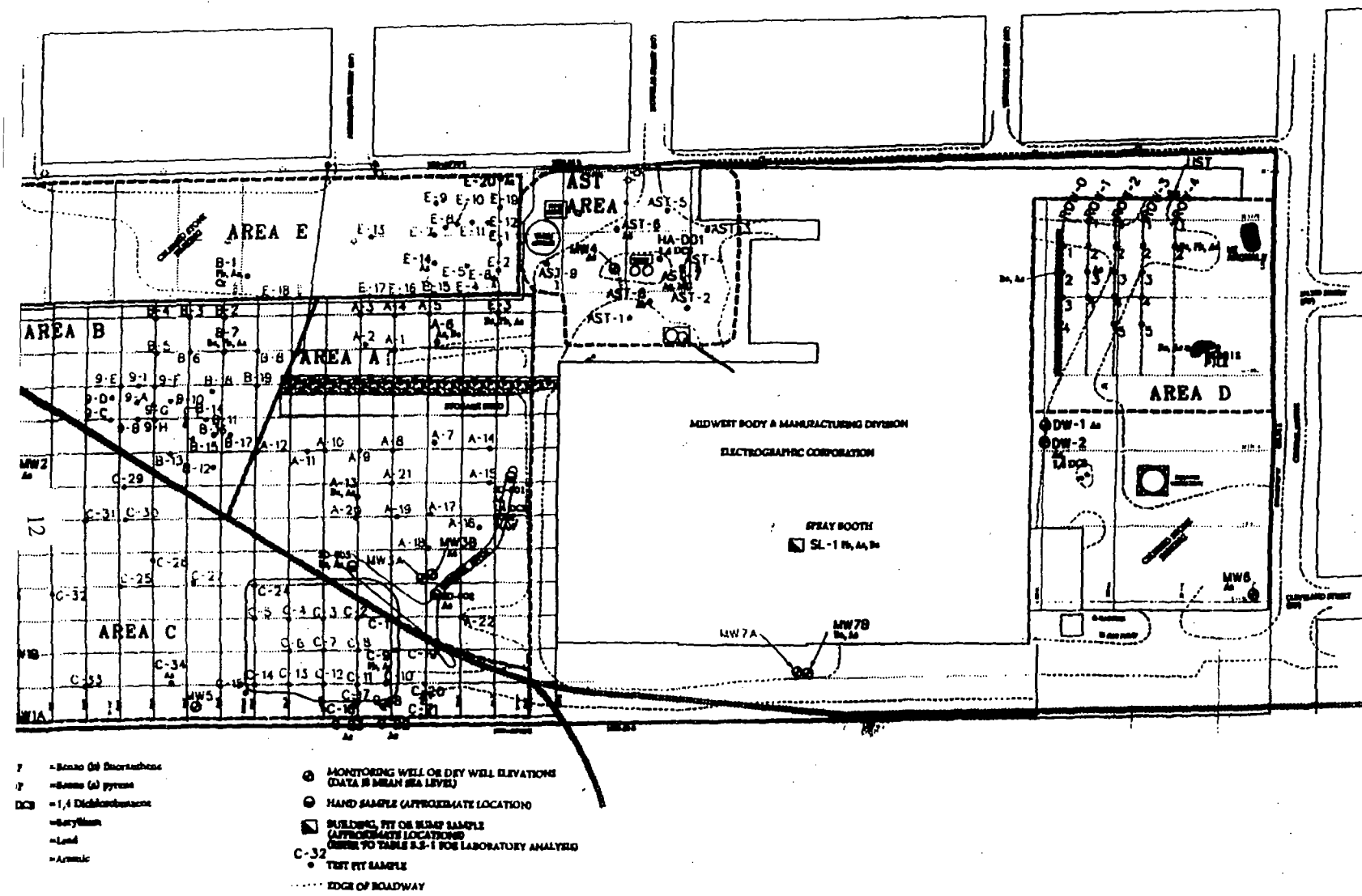


Figure 3



ENVIRONMENTAL SERVICES
DIVISION

OTHER OFFICES LOCATED AT:

GREEN BAY, WISCONSIN
MADISON, WISCONSIN
CHICAGO, ILLINOIS
COLORADO SPRINGS, COLORADO

PROJECT NAME:

LOWEST BODY CORPORATION
PAWS, ILLINOIS

SHEET TITLE:
MONITORING WELL
AND HAND SAMPLE
LOCATION MAP

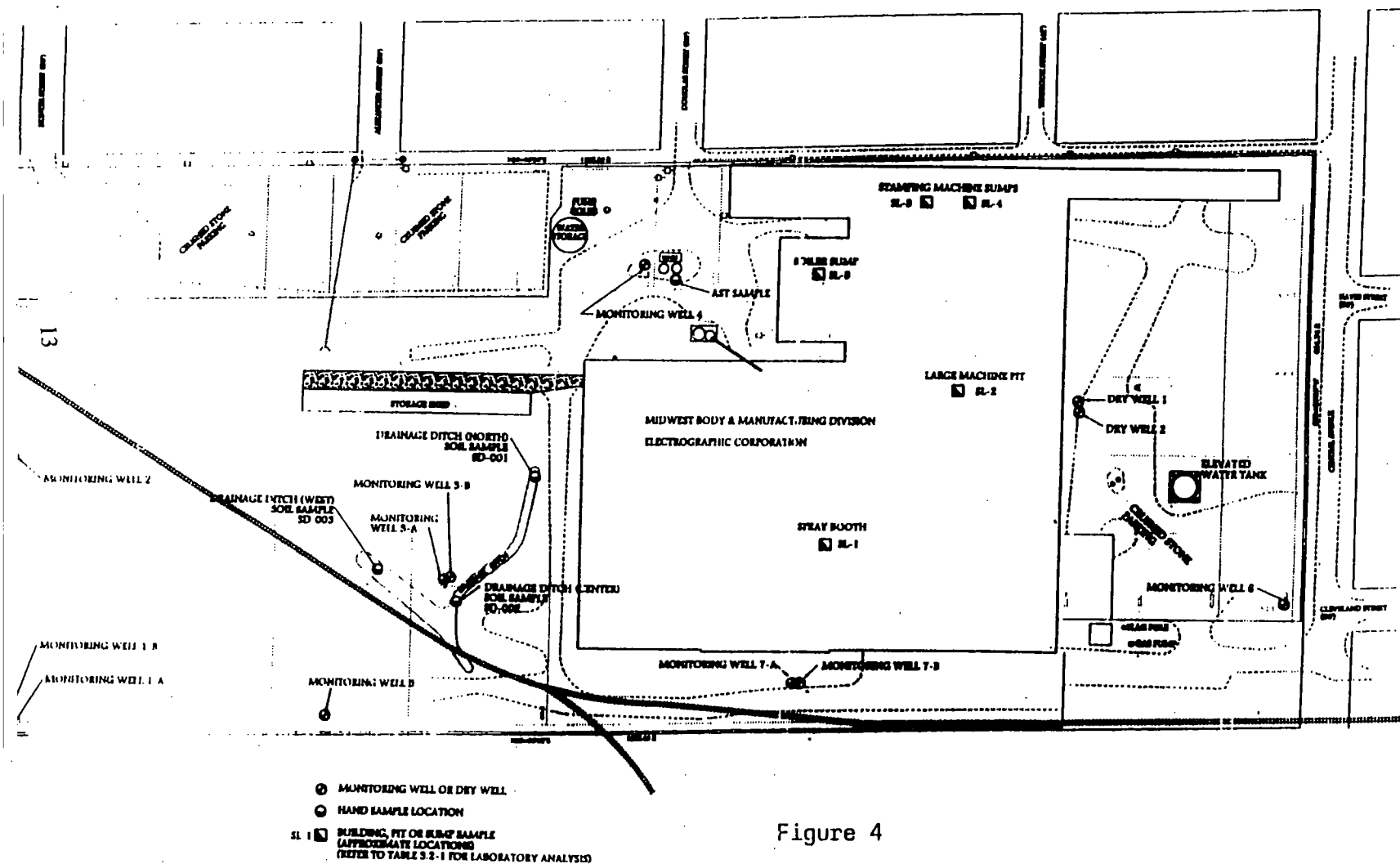


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DATE: 2-10-67

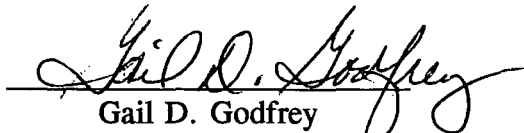
PROJECT MGR: D/H

DRAWN BY: ILW



CERTIFICATION

This Midwest Body Corporation Site Health Consultation was prepared by the Illinois Department of Public Health under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). It is in accordance with approved methodology and procedures existing at the time the health consultation was begun.

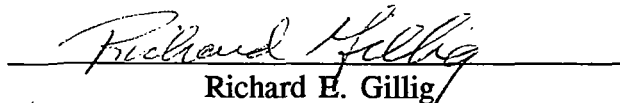


Gail D. Godfrey

Technical Project Officer

Division of Health Assessment and Consultation
ATSDR

The Division of Health Assessment and Consultation, ATSDR, has reviewed this health consultation and concurs with its findings.



Richard E. Gillig

Chief, State Programs Section

Division of Health Assessment and Consultation
ATSDR